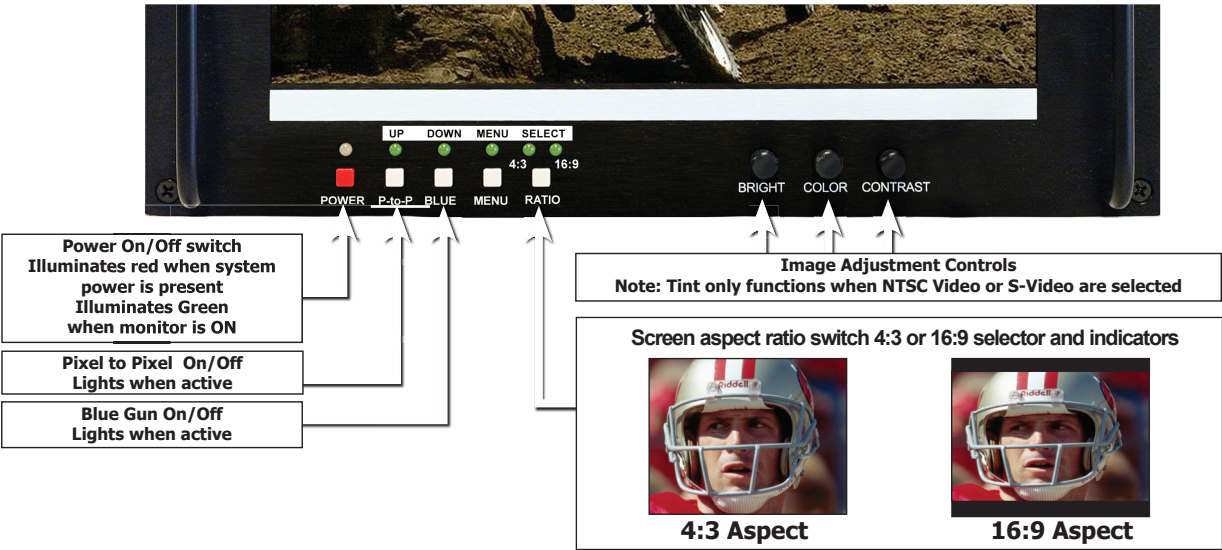


10 Switch Settings, Adjustments and Indicators



11 Pixel to Pixel Function (Under scan)

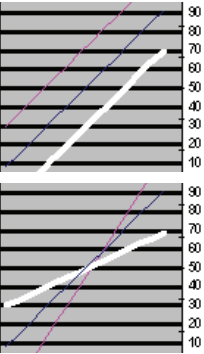
As the native LCD display is 800 pixels wide by 600 pixels high, it is necessary to change the size of the image to fill the whole screen. Pixel to Pixel mode bypasses the enlargement or scaling function and displays the native incoming format. For 525-NTSC based images, pixel to pixel will appear as a 480x640 (4:3 aspect) or 480x720 (16:9 aspect) display. For 625-PAL based images, pixel to pixel will appear as a 576x640 (4:3 aspect) or 576x720 (16:9 aspect) display.

12 Menu Functions

Turn On/Off with **Menu** button.
Use **Up** (P-P), **Dn** (Blue), and **Select** (Ratio) for menu navigation functions.
Color Temperature – Select D65 or User. User mode will automatically be turned on if Gain or Bias are adjusted.
Adj Color Gain – Select to adjust RGB gains.
Adj Color Bias – Select to adjust RGB bias
OSD – Toggle OSD on/off.
Version Number – Display only

Gain Adjustment

Press **Up** (P-P), **Dn** (Blue), to navigate. Chart legend: Left Line = Increase of gain
Press **Select** (Ratio) to activate. Center Line = D65 (Default)
Press **Select** to toggle R, G, or B Right Line = Decrease of gain
Press **Up, Dn**, to change value.
Press **Menu** to exit



Bias Adjustment

Press **Up** (P-P), **Dn** (Blue), to navigate. Chart legend: Right Line = Increase of Bias
Press **Select** (Ratio) to activate. Center Line = D65 (Default)
Press **Select** to toggle R, G, or B Left Line = Decrease of Bias
Press **Up, Dn**, to change value.
Press **Menu** to exit

OSD Adjustment

Press **Up** (P-P), **Dn** (Blue), to navigate.
Press **Select** (Ratio) to toggle OSD On/Off

13 Warranty

Marshall Electronics warranties to the first consumer, that this V-R84DP-HDSDI portable monitor will, under normal use, be free from defects in workmanship and materials, when received in its original container, for a period of one year from the purchase date. This warranty is extended to the first consumer only and proof of purchase is necessary to honor the warranty. If there is no proof of purchase provided with a warranty claim, Marshall Electronics reserves the right, not to honor the warranty set forth above. Therefore, labor and parts may be charged to you. This warranty does not apply to product exterior and cosmetics. Misuse, abnormal service or handling, improper alterations or modifications in design or construction, voids this warranty. No sales personnel of the seller, nor any other person is authorized to make any warranties other than those described above, or to extend the duration of any warranties on behalf of Marshall Electronics, beyond the time period described above. Due to constant effort to improve products and product features, specifications may change without notice.

Marshall Electronics

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V-R84DP-HDSDI Users Guide

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1 Product Overview

Our V-R84DP-HDSDI is a direct replacement for 8 and 9-inch CRTs used in broadcast and professional video applications. This cost effective model includes our Award Wining Digital **TFT-Megapixel™** system for the LCD screen with 1.44 million pixels plus our **HyperProcess™** of interlace images to produce the smoothest motion available on an LCD/TFT. Standard features include V-Mount battery adapter, 4 pin XLR power jack, and optical grade polycarbonate screen protection. Video is scaled to fit on screen in the highest resolution using a state of the art LSI that incorporates 6x6 pixel interpolation with precision Gamma correction and **Match Color Conversion™** to product the best images available.

2 Features

TFT-MegaPixel™ Display 800x600 Dots (1.44 million pixels)	Capable of displaying more than 800 TV Lines resolution. The composite video signals are internally up converted to High Definition. All signals remain completely digital to provide the most exact images available.
Standard Inputs	2 SDI with Auto Detect of 525/625 formats (BNC) (SMPTE259M) (ITU-R-BT601)
Durable metal enclosure	Protection for all connections and controls with strategically placed ventilation for use in harsh environments
Protective Screen Cover	Optical grade polycarbonate screen cover with Antireflective/Antiglare coating
HyperProcess™	Display interlace images without smearing or sacrifice of temporal resolution with our proprietary interpolation algorithms. Images are then displayed at a sample rate equal to the frame rate.
Memory Function	Adjustment Settings Memory stored on shutdown and recalled when power is applied
MatchColor Conversion™	Factory programmed to closely match typical SMPTE/EBU CIE color metric and color temperature specifications. This model is adjusted for D-65 color temperature and 62% SMPTE color gamut
Color Temp Adjustment	User control for gain and bias of Red, Green, and Blue colors
Blue Screen	Use for adjustment to SMPTE color Bars
OSD	On screen display of Format and Ratio
Pixel to Pixel™	Scale process bypass to display native pixel inputs. Also functions as Underscan
50,000 hour backlight life	Backlights are the most common failure on a TFT/LCD monitor. This backlight system has an MTBF of 5 years and uses specially designed lamps to provide brighter images.
Tally (DB-15)	Three LEDs (Red, Green, Amber) produce 7 different tally indications

3 Standard Accessories Accessories Supplied with the V-R84DP-HDSDI

- Users manual
- “Brick” type 12vdc power supply with 4 Pin Female XLR connector

- “V” Mount battery adapter
- ¼”-20 mounting plate

4 Optional Accessories

Stand	V-LCD4-ST		Use for table top mount
Sun Hood	V-H900		Use for viewing in bright lighting or outdoors
Power Adapter Cable	V-PAC-D		Use with Anton Bauer D-type connection
Power Adapter Cable	V-PAC-XLR		Use with 4 Pin XLR connections
Protective Carry Case	TBD		Manufactured by Storm Case

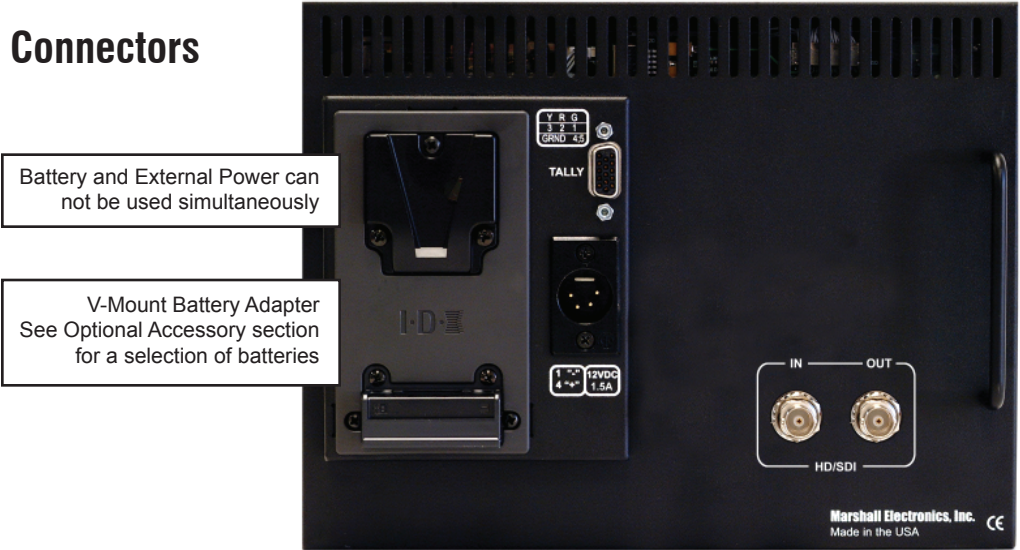
Recommended Anti-Static Cleaners and Polishes

210 Plastic Cleaner & Polish and 210 Plus Cleaner Sumner Laboratories 186 Lincoln Street Boston, MA 02111 617-542-8656 / Fax: 617-482-9001	20/20 Plastic-Cleaner Craftics, Inc. PO Box 91930 Albuquerque, NM 87199 (505) 338-0005
Crystalclean Discovery Plastics 3700 Western Way, NE Millersburg, OR 97231 541-926-2900 / Fax: 541-967-8441 www.discoveryplastics.com	Plexus Plastic Cleaner Plexus 638 Lindero Canyon Rd. #371 Agoura, CA 91301 800-405-6495 Fax: 818-879-0697
Scotch-Brite High Performance Cloth 3M Stationery & Office Supplies Div. 3M Center St. Paul, MN 55144-1000 877-362-5684 Fax: 651-733-0382 www.mmm.com	NOVUS #1 Plastic Clean and Shine NOVUS, Inc. 12800 Highway 13 South, Suite 500 Savage, MN 55378 800-548-6872 ext.451 Fax: 952-946-0435
The Simco Industrial Static Control An Illinois Tool Works Co. 2257 North Penn Road Hatfield, PA 19440-1998 800-203-3419 215-822-2171 Fax: 215-822-3795 www.simco.biz	Exair Corporation 1250 Century Circle North Cincinnati, OH 45246-3309 513-671-3322 Fax : 513-671-3363 www.exair.com

8 Operational Setup













1. Unpack the V-R84DP-HDSDI and accompanying power supply. Physically inspect for any damage that may have occurred during shipping. Should there be any damage, immediately contact Marshall Electronics at 800-800-6608. If you are not located within the continental united states call +1 310-333-0606.
2. Connect required cables for signal input and output.
Please note that power must be applied to the V-R84DP-HDSDI for the video outputs to be activated. All BNC connectors should be rated for 75Ω.
3. Plug the power supply into the A.C. source. Please note that power can be supplied from a variety of DC sources, such as batteries or Vehicle power. Input power range is 10.4 to 16.8 Volt D.C. In operation, the V-R84DP-HDSDI will draw approx. 1. amp. Attach 4 Pin XLR power connection from V-PS12-V-5 power supply to the back of the unit.
4. Turn on the V-R84DP-2SDI by depressing the power switch located on the front of the unit.

9 Input Connectors



* Tally lamps active when connected to ground

Optional Accessories (continued)

Battery Adapter	V-DV-PWR1		Uses 2 Sony DVCam/HDV FP-Type batteries. When used with monitor power supply, can charge batteries plus operate monitor
V-mount to Anton Bauer adapter	V-ABA-01		Use to power Marshall Electronics monitors that have V-Mount plate with Anton Bauer Gold Mount battery.
Sequential 2 channel charger	IDX-VL-2Plus		2-channel sequential charger with a built-in 60W power supply. Charges 2 ENDURA E series batteries in fewer than 5 hours. One 10' XLR cable included. Weighs only 2 lbs
Sequential 4 channel charger	IDX-VL-4		Economically charges 4 ENDURA E series batteries in under 6 hours using Full Power Charge (FPC) method
Simultaneous 4 channel charger	IDX-VL-4S		Charges 4 ENDURA E series batteries in 2.5 hours or less
55 W Lithium Battery	IDX-E7S		V-Mount battery pack with 3 LED power Indicator
55 W Lithium Battery with Power Link	IDX-E7		V-Mount Battery Pack with PowerLink includes accurate Power Status Display and supports Digi-View
82 W Lithium Battery	IDX-E10S		V-Mount battery pack with 3 LED power Indicator
82 W Lithium Battery with Power Link	IDX-E10		V-Mount Battery Pack with PowerLink includes accurate Power Status Display and supports Digi-View
Digital to Analog Converter	BC-0301-10		Converts SDI to analog Composite
Mounting Plate			Attaches to any side for mount to 1/4-20 threaded component
Cleaning Wipes	V-HWP-K		Package of 10 non-toxic, antistatic, alcohol and ammonia free cleaning wipes.

5 Electrical Specifications

Display (Viewing Area)	8.4 Inch diagonal (170.4mm w x 127.8mm h)
Screen Aspect	4:3/16:9 switchable
Resolution (RGB Dots)	800H×RGB×600V (1.44 million pixels)
Viewing Angles	160° with protective screen and treatment (130°H x 120°V native)
Contrast Ratio	500:1
Dot Pitch	.213mm square pixel
Pixel Response	10ms rise/25ms fall
Backlight Type / Life	Field Replaceable CCFL (50,000 hour half life)
Brightness	500 cd/m²
LCD Screen Treatments	Anti Reflection, Anti Glare, Hardcoat
Protective Screen	0.118" (3mm) thick Optical Grade Polycarbonate with Anti-Glare and Anti-Abrasion coatings. (600 Cheesecloth mil-M-13508C)
Estimated MTBF	5 years of 24/7/365 operation
System	NTSC/PAL auto recognition
Inputs	2 SDI (BNC) Self Terminating (SMPTE-259M) (ITU-BT-R601)
Active Outputs	1 SDI of on screen video (BNC) Available when power is applied
Color temperature	D65 (6500° Kelvin)
Color Gamut	SMPTE-C/EBU
Luma Linearity	Typical +/- 3% with 5 ire increments (0 to 10 ire)
Power Required	10.4 to 16.8 VDC
Power Consumption	Approx. 15 watt nominal
Operating Temperature	32°F to 120°F (0°C to 50°C)
Storage Temperature	-4°F to 120°F (-20°C to 50°C)
Compliance	CE, FCC-Class A, ANSI-63.4 (Certificates on file)
RoHS WEEE/Environmental	Do not dispose. Return to Manufacturer or Authorized Recycle Facility

6 Mechanical Specifications

Dimensions	9"w x 6.875" h x 2.5" d (228.6mm x 174.6mm x 38.1mm)
Approx. Weight	3.3 lbs (1.5 Kg)
Power Supply Weight	1.0 Lb (.45 Kg)

Digital Screen Formats and Frame Rates: All signal types and frame rates are automatically detected

- 525 – 60i / 625 – 50i (Interlaced NTSC/PAL)
- 720 x 1280 – 23.97P, 24P, 25P, 50P, 59.94P, 60P (Progressive)
- 1035 x 1920 – 59.94i, 60i (Interlaced)
- 1080 x 1920 – 50i, 59.94i, 60i / 23.973Psf, 24Psf, 25Psf, 29.97Psf, 30Psf

Psf=Progressive or Segmented Frame formats

7 Faceplate Cleaning

Faceplate Cleaning

When cleaning the faceplate it is very important to use non-abrasive and ammonia free cleaning agents and a clean micro fiber cloth. Do not use paper towels. Paper towel fibers are coarse and may scratch the surface of the Polycarbonate faceplate. Paper towels may also leave streaks on the surface. Antistatic and fingerprint resistant cleaning agents are recommended. Wash protective cover with a solution of mild soap or detergent and lukewarm water. Use a clean soft cloth, applying only light pressure. Rinse with clean water and dry by blotting with a damp cloth or chamois. Grease, oil or tar may be removed with a good grade of hexane, aliphatic naphtha, or kerosene. These solvents may be obtained at a paint or hardware store and should be used in accordance with manufacturer's recommendations.

DO NOT USE: window cleaning sprays, kitchen scouring compounds or solvents such as acetone, gasoline, benzene, alcohol, carbon tetrachloride, or lacquer thinner. These can scratch the sheet's surface and/or weaken the sheet causing small surface cracks called "crazing."

Faceplate Dusting

Dust with a soft, damp cloth or chamois. Dry or gritty cloths may cause surface scratches and create a static electric charge on the surface. Neutralizing static electricity effects by using recommended cleaning and polishing practice.

Faceplate Polishing

Protect and maintain surface gloss by occasional polishing with a good plastic cleaner and polish. Apply a thin, even coat with a soft clean cloth and polish lightly with cotton flannel. Then wipe with a damp cloth to help eliminate electrostatic charges that can attract dust particles

Marking on the Faceplate

Use SHARPEE or equivalent marker. Clean as per instructions with an ammonia free cleaning agent.